

CLAIMS:

5 *Sulam*
1. A method for reducing or preventing adhesions in a patient comprising exposing tissue which has been subjected to tissue damage and is at risk for the formation of adhesions to a polymeric composition comprising chain-extended, substantially non-crosslinked, substantially non-water soluble poly(hydroxy-carboxylic acid)/poly(oxyalkylene) ABA triblocks, where A is an aliphatic polyester and B is a polyoxyalkylene polymer unit.

10 2. The method according to claim 1 wherein said polyester comprises poly(aliphatic α -hydroxy carboxylic acid).

15 3. The method according to claim 2 wherein said polyester is obtained from polymerization of an aliphatic hydroxycarboxylic acid or ester selected from the group consisting of L-lactic acid, D,L-lactic acid, glycolic acid, L-lactide, D,L-lactide, glycolide, *and* ~~or~~ mixtures thereof.

20 4. The method according to claim 1 wherein said poly(oxyalkylene) polymer is comprised of a poly(ethylene oxide) homopolymer or poly(ethylene oxide)-co-poly(propylene oxide) block copolymer.

5. The method according to claim 1 wherein said polyester comprises units of an aliphatic hydroxycarboxylic acid or the corresponding cyclic dimeric ester selected from the group consisting of L-lactic acid, D,L-lactic acid, glycolic acid, L-lactide, D,L-lactide,

glycolide ^{and} mixtures and said poly(oxyalkylene) polymer is comprised of a poly(ethylene oxide) homopolymer ^{or} poly(ethylene oxide)-co-poly(propylene oxide) block copolymer.

6. The method according to claim 5 wherein said A block is between about 4 and 50 carboxylic acid units in ^{weight} ^{length} ~~size~~ and said B block ~~is~~ varies in ^{molecular weight} ~~size~~ from about 200 Da to about 200,000 Da.

7. The method according to claim 6 wherein said A block comprises carboxylic acid units derived from L-lactide or D,L-lactide and said B block is comprised of poly(ethylene oxide).

8. The method according to claim 7 wherein said A block is approximately 6 to 30 carboxylic acid units in length and said B block is comprised of poly(ethylene oxide) having a molecular weight of between 1,500 and 10,000 Da.

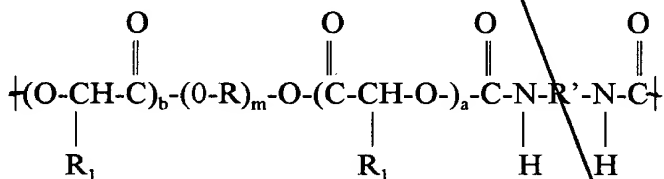
9. The method according to claim 1 wherein said composition is in the form of a preformed structure ^{which} ~~such as~~ a film, rod, tube, bead, foam, ~~or~~ ring, ~~or~~ a dispersion, suspension, gel, liquid, spray ~~or~~ viscous solution.

10. The method according to claim 1 wherein said composition further includes a bioactive agent.

11. A method for reducing or preventing adhesions in a patient comprising exposing

Sub 3
Conclude

tissue which has been subjected to tissue damage and is at risk for the formation of adhesions to a polymeric composition comprising polymers of the chemical structure:



10 where m, a and b are positive integers,

R is an ethylene group and/or propylene group with the proviso that R is not exclusively a propylene group when m is more than 1, R' is a C₂ to C₈ alkylene group, a cycloalkyl or cycloalkyl-containing group, an aryl or aryl-containing group, 4,4'-diphenylmethane, toluene, naphthalene, 4,4'-dicyclohexylmethane, cyclohexyl, 3,3'-dimethylphenyl, 3,3'-dimethyl-
15 diphenylmethane, 4,6'-xylylene, 3,5,5-trimethylcyclohexyl, 2,2,4-trimethylhexamethylene or p-phenylene and R₁ is H or CH₃.

12. The method according to claim 11 wherein R₁ is CH₃.

20 13. The method according to claim 11 wherein m is 4 to about 5,000, R₁ is CH₃ and R is an ethylene group.

14. The method according to claim 11 wherein m is about 30 to about 230, R₁ is CH₃, and R is an ethylene group.

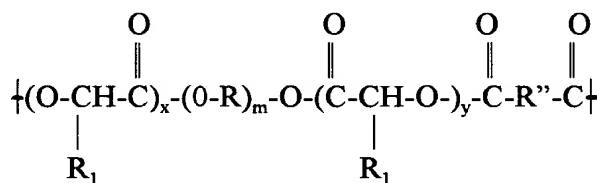
25 15. The method according to claim 11 wherein R' is a C₆ alkylene group.

16. The method according to claim 11 wherein said composition is in the form of a preformed structure ^{which} such as a film, rod, tube, bead, foam, ring ~~or~~ a viscous liquid, dispersion, suspension, viscous solution, spray ^{and} or gel.

17. The method according to claim 11 wherein a and b are the same integer.

18. The method according to claim 11 wherein said polymeric composition includes a bioactive agent.

19. A method for reducing or preventing adhesions in a patient comprising exposing tissue which has been subjected to tissue damage and is at risk for the formation of adhesions to a polymeric composition comprising polymers of the chemical structure:



where m, x and y are positive integers,

R is an ethylene and/or propylene group with the proviso that R is not exclusively a propylene group when m is greater than 1, R₁ is a hydrogen or methyl group, R'' is a C₀ to C₁₂ alkylene group or a hydroxyl or carboxylic acid substituted alkyl group, a cycloalkyl, a hydroxyl-containing cyclo alkyl, or cycloalkyl-containing group, an aryl or aryl-containing group, or a polyoxyalkylene chain comprised of poly(ethylene oxide), poly(ethylene oxide)-co-poly(propylene oxide) or a poly(ethylene oxide) rich chain.

20. The method according to claim 19 wherein R_1 is CH_3 .

21. The method according to claim 19 wherein m is 4 to about 5,000, R_1 is CH_3 and R is an ethylene group.

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22. The method according to claim 19 wherein m is about 30 to about 230, R_1 is CH_3 and R is an ethylene group.

23. The method according to claim 21 wherein R'' is a C_6 alkylene group.

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24. The method according to claim 19 wherein said composition is in the form of a preformed structure ^{which} such as a film, rod, tube, bead, foam, ~~or~~ ring, ~~or~~ a viscous liquid, gel, dispersion, suspension, spray ^{and} or viscous solution.

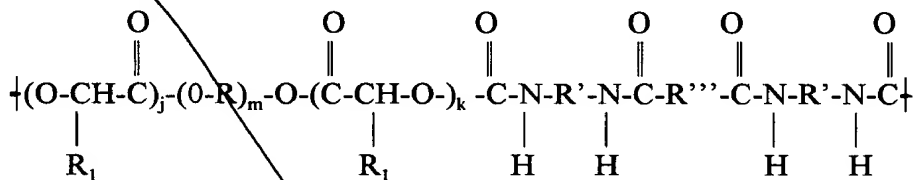
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25. The method according to claim 19 wherein said composition includes a bioactive agent.

26. A method for reducing or preventing adhesions in a patient comprising exposing tissue which has been subjected to tissue damage and is at risk for the formation of adhesions to a polymeric composition comprising polymers of the chemical structure:

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where j, k and m are positive integers,

R is an ethylene or propylene group with the proviso that R is not exclusively a propylene group when m is greater than 1, R' is a C₂ to C₁₂ alkylene group, a cycloalkyl or cycloalkyl-containing group, an aryl or aryl-containing group, 4,4'-diphenylmethane, toluene, naphthalene, 4,4'-dicyclohexylmethane, cyclohexyl, 3,3'-dimethylphenyl, 3,3'-dimethyldiphenylmethane, 4,6'-xylylene, 3,5,5-trimethylcyclohexyl, 2,2,4-trimethylhexamethylene or p-phenylene, R''' is poly(ethylene oxide), poly(ethylene oxide)-co-poly(propylene oxide) or a poly(ethylene oxide)-rich chain and R₁ is H or CH₃.

27. The method according to claim 26 wherein R₁ is CH₃.

28. The method according to claim 26 wherein m is 4 to about 5,000, R₁ is CH₃ and R is an ethylene group.

29. The method according to claim 26 wherein m is about 30 to about 230, R₁ is CH₃ and R is an ethylene group.

30. The method according to claim 26 wherein R' is a C₆ alkylene group.

31. The method according to claim 26 wherein said composition is in the form of a preformed structure ^{which} such as a film, rod, tube, bead, foam or ring, or a viscous liquid, dispersion, suspension, viscous solution, spray or gel.

32. The method according to claim 26 wherein ^j~~a~~ and ^k~~b~~ are the same integer.

33. The method according to claim 26 wherein said polymeric composition includes a bioactive agent.

34. The method according to claim 26 where R''' has a molecular weight ranging from about 200 Da to about 10,000 Da.

35. The method according to claim 26 wherein R' is a C₂ to C₈ alkylene group.